

AIR WAR COLLEGE

AIR UNIVERSITY

EXTENDED NUCLEAR DETERRENCE  
FOR EUROPE  
WITHOUT FORWARD-BASED WEAPONS

by

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## **Biography**

Colonel Jeffrey S. Keckley is a U.S. Air Force intercontinental ballistic missile (ICBM) operator assigned to the Air War College, Air University, Maxwell AFB, AL. He graduated from The Ohio State University in 1989 with a Bachelor of Science degree in Business Administration, from Embry Riddle Aeronautical University in 1994 with a Masters of Aeronautical Science, and from Air University in 2005 with a Masters of Military Arts and Science. His ICBM assignments include combat crew, Senior Crew Instructor, evaluator, Flight Test Director, flight commander, and Operations Officer. During two staff tours, he was responsible for ICBM modernization programs at Air Force Space Command and nuclear command and control procedures at the Joint Staff.



## **Abstract**

The United States can fulfill its longstanding commitment to extended nuclear deterrence without physically storing weapons on the European continent. However, more than 20 years after the end of the Cold War, America still keeps an estimated 150-200 B-61 gravity bombs in host countries for potential delivery by dual-capable fighter strike aircraft. Faced with mounting budget constraints and increasing weapon sustainment costs, the Department of Defense should closely evaluate the tactics used to provide our European partners the nuclear assurances that bind NATO together. An alternative deployment scheme would enable NATO to safely and securely store the weapons within the continental United States and deliver the weapons to forward locations only when needed to ratchet up pressure to dissuade an adversary against further aggression. This efficient deterrence technique offers distinct advantages in terms of escalatory signaling, weapon system cost savings, nuclear security improvements, and advancements in non-proliferation objectives without jeopardizing extended deterrence promises to NATO allies.

While there is ample public discourse calling for the removal of US nuclear weapons from Europe and a considerable amount of institutional resistance to such a change in NATO nuclear posture few, if any, authors have suggested options satisfying the interests of both groups. This paper examines the rational for keeping these tactical nuclear weapons in place, the arguments for eliminating them from Europe, and then presents an alternative leveraging the benefits of extended nuclear deterrence without attendant costs and risks of forward-storage.

The road to nuclear zero is a long journey replete with many difficult choices for world leaders to navigate. Adopting an extended nuclear deterrent concept for Europe without forward-based weapons is simply a small first step down the road in the right direction.

## **Introduction**

Failure of the Congressional Joint Select Committee on Deficit Reduction (a.k.a. the “Super Committee”) to agree on deficit reduction strategy in November 2011 triggered an automatic 1.2 trillion-dollar budget cut split evenly between defense and non-defense spending over the next 10 years. To successfully enact such dramatic budget reductions on the defense side without creating “a hollow force incapable of sustaining the missions it is assigned,”<sup>1</sup> the Defense Department must break from old paradigms about the operational tactics to conduct these missions. As such, the mission of US extended nuclear deterrence provided to European allies should be closely evaluated in this context.

The estimated 150-200 remaining US non-strategic nuclear weapons (NSNW) maintained in Europe<sup>2</sup> have been the subject of contemporary debate since the end of the cold war. These discussions can be heated and fueled with passions of a continent ravaged by two World Wars and fearful of a resurgent Russia. Generally speaking though, most of the research and voluminous public discourse falls into two camps. Proponents of forward-basing maintain these non-strategic US weapons continue to play a critical role in the complex deterrence calculus keeping still-nuclear-powerful Russia at bay. While opponents of theater nuclear weapon (TNW) deployment consider these weapons an unnecessary, antagonistic and dangerous Cold War relic and press for complete elimination through negotiated arms control measures or unilateral action. These countering perspectives have left the US in a policy stalemate with a stated desire to reduce nuclear weapons worldwide (i.e. global zero) and a commitment to the NATO alliance still dependent on nuclear defense. In the debates, there are few options presented as middle-ground to move the US off this uneasy impasse and headed in the right direction toward the President’s goal of global zero. America needs to explore alternative

opportunities between these two extremes allowing for a physical reduction in weapons on European soil while staying true to the extended deterrence promises.

This paper analyzes opposing all-or-nothing propositions regarding US weapons in Europe—maintain status quo or eliminate them entirely—and offers a unique, intermediate option found in the gap between these two extremes: continued extended nuclear deterrence for Europe without forward-based weapons. The US should withdraw forward-deployed TNW from Europe but maintain the capability to generate theater nuclear aircraft by storing and maintaining the bombs in continental US (CONUS). The weapons would be delivered to a forward operating location only when a dual-capable aircraft (DCA) fighter execution option is developed. When appropriate, the Air Force would securely transport weapons via special nuclear-certified airlift and then upload the bombs onto strike sorties as a definitive signal of resolve and escalation to both adversary and ally alike. By withdrawing the forward-based nuclear weapons, the US could realize substantial cost savings, improvements to nuclear security, and advancements in non-proliferation objectives without jeopardizing its extended deterrence assurances to NATO allies.

## **Why Continue Storing US Nuclear Weapons in Europe?**

Those who argue for the continued presence of TNW claim nuclear forces are an indispensable link to US commitment—an assurance America will come to Europe's aid if attacked. This is a longstanding element of US nuclear extended deterrence for NATO countries. In the Cold War these deployments included tactical nuclear weapons delivered by artillery, aircraft, medium range missiles and cruise missiles to counter an overwhelming conventional Soviet capability to quickly advance on Europe. The original Cold War planners sought to deploy sufficient weapons to make a difference in the USSR calculus, but not so many as to

imply they could fully satisfy NATO's nuclear needs without the rest of the American nuclear arsenal of intercontinental, sea-launched and strategic bomber weapons. The theory asserts if these pre-positioned forces were attacked or necessarily employed by NATO in escalation, the US would commit more strategic forces in retaliation. This concept of interdependence commonly referred to as the "trip-wire doctrine."<sup>3</sup>

Extended deterrence in Europe also helped to ensure cohesion within the NATO alliance, at least during most of the Cold War period. By placing US troops on the front-lines in Germany, by stating that if those forces were unsuccessful in stopping a Soviet invasion that NATO would utilize tactical nuclear weapons (and by making that threat credible through the deployment of weapons and development and rehearsal of procedures indicating that their use would be almost automatic), and by committing itself to continuing to escalate a nuclear war up to and including an all-out strategic exchange between the US and Soviet homelands, the United States made clear its willingness to share the risk.<sup>4</sup>

This trip-wire continues to underpin much of NATO members' unwillingness to consider changing the US nuclear posture today although only a small fraction of this once-comprehensive force mix is still deployed in the form of B-61 gravity bombs and DCA to deliver them to target. With much of the trip-wire's requisite US troop presence gone, TNW proponents argue keeping these last vestiges of the US arsenal stationed in Europe bolsters both NATO and Russia's perception America will still be obligated to come to the continent's defense. They insist these systems provide necessary visible escalatory signaling to an adversary and tangible assurances to the alliance.

Additionally, those arguing to keep TNW status quo warn against withdrawing US weapons from Europe fearing it would represent a deterioration of the great alliance, which at its heart is a nuclear alliance. They worry the popular wave of enthusiasm for nuclear disarmament will lead to US withdrawal of nuclear weapons and weaken NATO as a whole.<sup>5</sup> Some Eastern European leaders highlighted this concern in an open letter to the Obama administration

published in a Polish newspaper: “Our ability to continue to sustain public support at home for our contributions to Alliance missions abroad also depends on us being able to show that our own security concerns are being addressed in NATO and close cooperation with the United States.”<sup>6</sup> Since the 2008 Russo-Georgian war, they increasingly doubt the resolve of NATO to stand by its security commitments and might view TNW withdrawal as further erosion of US engagement with Europe.

Some view the nuclear-sharing arrangement of the alliance as a structural benefit unto itself, an “important achievement in managing alliance security.”<sup>7</sup> To them, maintaining a strong nuclear bond between the US and NATO partners seems like a sensible and non-provocative means to achieving extended deterrence and nonproliferation faced with a nuclear-armed neighbor. This defense policy is to balance against the overt Russian nuclear doctrinal declaration: “in order to defend its own sovereignty, territorial security, and the territorial security of its allies, it would use nuclear weapons, even if it were the first nation in the conflict to use them.”<sup>8</sup> One can see the Russians view nuclear weapons in terms of war-fighting capability, not just as a theoretical deterrent. Considering this Russian posture, NATO TNW proponents steadfastly argue for the status quo, including forward-deployment. What they fail to contemplate is that the constructive unifying practices of nuclear planning and burden-sharing could still be leveraged by the Alliance without the physical presence of weapons stored in host countries.

## **Why Withdraw US Nuclear Weapons from Europe?**

One argument for withdrawal challenges the value of nuclear weapons criticizes NATO for failing to engage in the necessary debate to determine what deterrence actually means for the

Alliance in the Post-Cold War environment. This viewpoint disputes the trip-wire concept and its relevancy in today's strategic environment focusing on the current B-61 DCA inherent weaknesses, lack of allied investment and shrinking commitment to follow-on platforms.<sup>9</sup> This criticism suggests the forward-deployed weapons may lack credibility as a deterrent to aggressors since the ability to deliver an effective strike is eroding and therefore may not be worth the real costs of maintaining them. Even faced with this very real cost-versus-benefit dilemma during an ongoing economic crisis, NATO continually fails to take up the issue and simply kicks the can down the road. Instead, they seem devoted to the status quo without regard to the underlying deterrent principle.

Likewise, NATO is critiqued for not formulating a clear and bold new vision for its nuclear policy for the 21st century. Rather, NATO bureaucrats have put together a “hodgepodge of justifications consisting of slightly rewritten policy language from history, outdated remnants of Cold War threats (Russian non-strategic nuclear weapons), unsubstantiated claims of deterring proliferators of weapons of mass destruction, vague and exaggerated rhetoric about preserving peace and preventing ‘any kind of war,’ and peripheral managerial issues of providing a political and military link between Europe and the United States.”<sup>10</sup> For example, NATO devalues the war-fighting capability of the European B-61 arsenal, saying the role of nuclear weapons “is now more fundamentally political, and they are no longer directed towards a specific threat.”<sup>11</sup> This public policy position calls into question the notion they would ever actually be employed against an aggressor which thus erodes their deterrent effect in any adversary’s decision-making.

One can argue under this NATO non-specific-threat policy, “forward-deployed US nuclear weapons appear to serve essentially any purpose against any opponent in Europe or even outside the region.”<sup>12</sup> Naturally, this panacea lacks credibility and ignores the opportunity to

take even a small step down the road to zero by holding fast to an unnecessary, costly and potentially dangerous norm. NATO seems caught in a morass of inconsistent objectives. The Alliance clings to TNW as residue of its near past when the Soviet threat was clear, nevertheless “far from being a credible, rationale and reliable means of protecting citizens and property, nuclear deterrence is fraught with costs, risks, logic weaknesses, and moral dilemmas.”<sup>13</sup>

Others like Klaus Wittmann of the NATO Defense College decry NATO’s apparent unwillingness to challenge the threat assumptions and deterrence aims 20 years after the Cold War. It is imperative NATO stop the deliberate delay tactic of choosing not to debate the roles and utility of nuclear forces. In light of the global zero goal, NATO must make clear their intentions and chart actionable steps to move Europe off of a concept reliant on forward-deployed nuclear weapons. Wittmann lauds the momentum of President Obama’s Prague speech and the German Gang of Four’s call for withdrawal of US weapons from Europe, but expresses disappointment at the lack of any type of roadmap.<sup>14</sup>

Still, this policy entrenchment is likely unsustainable since the core NATO burden-sharing arrangements are increasingly subject to public debate and sharp criticism. Take for example, US Secretary of Defense Robert Gates’ stern rebuke of European NATO members’ reluctance to expand their defense budgets. In 2011 he remarked, “The blunt reality is that there will be dwindling appetite and patience in the US Congress, and in the American body politic writ large, to expend increasingly precious funds on behalf of nations that are apparently unwilling to devote the necessary resources or make the necessary changes to be serious and capable partners in their own defense.”<sup>15</sup> Other policy experts sum up the potential negative consequences of further inaction: “Maintaining the status quo, with its attendant costs and risks, can undermine, not strengthen, NATO security.”<sup>16</sup>

Moreover, some proponents of withdrawal argue the NATO nuclear sharing arrangement violates the intent of nuclear Non-proliferation Treaty (NPT) articles I and II, thereby undermining any other US or international efforts to further the non-proliferation agenda. Since the US weapons are present for Alliance execution, the weapons might be transferred to a non-nuclear state's delivery aircraft. "Controversy behind the nuclear sharing is as old as formation of the Nuclear Non-Proliferation Treaty and it is open truth that US nuclear presence on European soil is its clear violation."<sup>17</sup> It is worth noting even a CONUS-based model of extended deterrence maintaining the option for executing strikes using non-US aircraft to carry B-61 bombs would not satisfy this criticism.

Similarly the organizational nuclear bonding attributed to NATO's burden-sharing arrangement may actually be a divisive issue for the alliance. A Dutch think tank studied growing pressures and lack of consensus among NATO nations regarding the merits of nuclear forces in Europe as a deterrent in an alliance whose biggest players are publicly advocating a global zero. This research explored fissures in alliance cohesion and the various stakes for member states. They evaluated the value of TNW as a political weapon, level of support within NATO for ending the deployment of US TNW in Europe, and the deadlocked policy process. Their study concluded, "There is sufficient political will within NATO to end the deployment of US tactical nuclear weapons (TNW) in Europe. Fourteen, or half of all NATO member states, actively support the end of TNW deployment. Ten more say they will not block a consensus decision to that end. Only three members say they oppose ending the deployment."<sup>18</sup>

This study also suggests as Russia and NATO seek to adjust their mutual postures to new continental realities, action on TNW is long overdue. It encourages unilateral withdrawal of US weapons as a positive step and suggests the Russians would view it likewise. This is important

because American resistance to change its TNW policy is consistently linked to Russian reductions. The US wants to see reciprocal reductions in Russian NSNW as a stabilizing security measure and a significant non-proliferation step. These smaller scale weapon systems are geographically dispersed in storage making them more vulnerable to theft or capture. Currently, these systems are not part of any disarmament treaty or inspection regime. “But Russia refuses to talk about its TNW until the US first relocates all its TNW back to the U.S.”<sup>19</sup> Furthermore, Russia explicitly “points to the continuing presence of US tactical weapons (TNW) in Europe as justification” for its new first-use policy and their need to maintain non-strategic nuclear weapons (NSNW) in support of it.<sup>20</sup> So the forward-positioning of US TNW may actually be more provocative and destabilizing in the new strategic context than they ever were in the Cold War. This antagonism makes deterrence logic unnecessarily complicated.

Likewise, George Shultz, William Perry, Henry Kissinger and Sam Nunn have joined together calling for practical, positive steps to reduce global reliance on nuclear weapons. They propose concentrating on near-term measures to establish “paving stones” on the “road to zero.”<sup>21</sup> They argue one of the important steps in this momentous undertaking is to start a discussion within NATO and with Russia, on consolidating forward-deployed weapons to make them more secure and as an accounting measure for eventual elimination. However, lacking a formal bi-lateral treaty addressing TNW, someone has to act first. Removing TNW from Europe would “inspire confidence and trust in NATO’s willingness to negotiate more difficult issues on the ‘road to zero’.”<sup>22</sup> Much could be gained by relocating B-61 bombs to US storage sites thereby lowering the diplomatic and security obstacles to further reduction of TNW without sacrificing current US extended deterrence commitments to NATO.

Additionally, the potential to reduce TNW dispersal is a significant opportunity to deal with proliferation risks due to theft or sabotage. The US should consider consolidating TNW on both sides of the NATO-Russia border as a practical security measure. As Russian weapon numbers draw down, the devices become increasingly vulnerable because they are deployed in a scattered manner to increase survivability, thus creating a natural security dilemma. However, by relocating US-NATO weapons from Europe, Russia could be incentivized to consolidate their non-strategic stockpile making them more secure from proliferation risks of capture or theft.<sup>23</sup>

## **Is There Middle-Ground?**

The Air Force's principle office responsible for nuclear deterrent policy, Headquarters Air Force Assistant Chief of Staff for Strategic Deterrence and Nuclear Integration (HAF/A10), acknowledges the balance of deterrence missions is complex, "We have a limited understanding of how to deter, assure, and fight simultaneously in the same region."<sup>24</sup> This lack of understanding may contribute to the apparent policy and operational disconnects keeping the European extended deterrence posture in incongruent policy limbo while other, more dramatic reductions in the nuclear triad are under consideration such as the possible elimination of land-based intercontinental ballistic missiles (ICBM).

The Air Force points to the different assurance tactics in Europe and the Pacific and the need to consider more bombers as an alternative to overcome the reliance on DCA. "We believe the bomber is the best means of providing extended deterrence and assurance, but that may require a paradigm shift for our allies and friends." Yet oddly, they do not seem to consider DCA presence without forward-weapon storage in the same fashion they characterize conventional bomber presence as an element of Pacific extended deterrence. In the Pacific, they

credit conventional bombers with deterrent effects even though they do not have immediate access to nuclear weapons, but no one is proposing an equivalent DCA concept.

Ending the forward deployment of US tactical nuclear weapons is consistent with the necessary emphasis on practical, viable, near-term steps towards disarmament required to progress down the road to zero. While some in NATO are reluctant to change to the current dispersal concepts with US forward-deployed TNW, others may be open to alternatives such as the CONUS-based extended deterrence model recommended in this paper. “There is also a growing recognition within NATO, however—including those states that operate NATO DCA—that the status quo is not sustainable, and that there are alternatives to the current arrangements that would maintain the nuclear sharing even without US forward based NSNW and could provide a more credible and sustainable posture for NATO.”<sup>25</sup> Similarly, with the 2010 NATO Strategic Concept specifically vague on the status of US TNW in Europe, there may be an emerging US policy gap signaling (perhaps unintended) an opportunity for action:

It is noteworthy that several major recent policy reviews—the Quadrennial Defense Review, the Ballistic Missile Defense Review, the Nuclear Posture Review, and the report of the Group of Experts led by Madeline Albright—did not explicitly call for the continued deployment of US tactical nuclear weapons in Europe. All emphasized the importance of providing extended deterrence to the allies, but this does not necessarily require nuclear weapons deployed in Europe.<sup>26</sup>

## **CONUS-based Extended Deterrence Concept**

Before proceeding further, it is important to explain the concept of this notional CONUS-based employment as a reference point for the following discussion. This extended deterrence model would be similar to the way the US provides nuclear retaliatory assurances to Pacific allies. In this theater, no weapons are forward-deployed, but operational plans support defense of the allies through ICBM, submarine launched ballistic missile (SLBM) and strategic bomber

contingency options. To bolster credibility of the regional deterrent, the US conducts conventional bomber missions in the Pacific theater as a demonstration of global reach and resolve. The Air Force refers to this tactic as “Conventional Continuous Bomber Presence.”<sup>27</sup> Additionally, a full range of ad hoc options can be developed for a specific threat scenario including bomber sorties and/or dual-capable aircraft delivery. If a DCA strike was selected as part of a theater nuclear option, the US could use temporary, limited-duration storage and guarding on a forward base like Guam without a substantial investment in permanent infrastructure. The actual weapons would be safeguarded in CONUS and transported just-in-time, to limit the duration of the enhanced security requirements. The transport of the B-61 weapons into the theater and generation of the strike aircraft would serve as graduated signaling of intent and preparedness. Thus, potential adversaries are deterred without having to maintain costly and potentially vulnerable storage bunkers at forward locales. The Air Force’s Prime Nuclear Airlift Force (PNAF) provides safe, secure, just-in-time delivery capability to forward staging points. Unlike the more covert preparation of strategic systems such as ICBMs and submarines, DCA ratchets up the pressure via deliberate, visible generation of and presents opportunities for de-escalatory discourse between potential belligerents.

### **Political implications**

A popular concern about withdrawing US TNW is the perception of abandonment might encourage other countries to develop their own nuclear weapons to fill the security void. By examining some past cases, we can reasonably counter this proliferation apprehension. First, consider within NATO the number of nuclear weapons staged in Europe has declined at the end of the Cold War from around 5,000 warheads for various DCA platforms, ballistic and cruise

missiles to only about 200 today B-61 gravity bombs today. During the same period while the NATO alliance doubled to 28 members, no member state felt compelled to supplement the shrinking presence of US TNW with a nuclear program of its own. Likewise, both France and Britain's nuclear posture was concurrently reduced, not expanded to fill the void. Secondly, the case of Pacific extended deterrence indicates this proliferation risk is manageable through bilateral assurances the US strategic nuclear umbrella is responsive and capable. Until 1991, "thousands of US tactical nuclear weapons were deployed on the Korean Peninsula as part of a strategy designed to deter a North Korean attack, as well as possible use in a war."<sup>28</sup> As the US withdrew these forward-deployed weapons in a de-escalatory gesture, our allies maintained confidence in the guarantees of the US ICBM, SLBM and bomber response options against potential aggressors. This extended deterrence arrangement lacks the multi-lateral structure, governance and complex procedures of NATO, but still provides steadfast assurance of US protection. So much so, Japan and South Korea have not developed nuclear weapons despite having the technological and industrial base to be successful and an aggressive adversary in North Korea.

Moreover, as discussed earlier, the presence of US nuclear weapons has a destabilizing effect on European host-country domestic politics. In 2010, "Belgium, Germany Luxembourg, Netherland and Norway announced that they will demand that the United States remove the weapons from Europe."<sup>29</sup> Increasingly, governments find it difficult to justify the continued nuclear cooperation and expenditures to their constituents. In their plea to the US and Russia to reduce sub-strategic weapons, the Foreign Ministers of Sweden and Poland proclaimed, "We still face security challenges in the Europe of today and tomorrow, but from whatever angle you look,

there is no role for the use of nuclear weapons in resolving these challenges.”<sup>30</sup> Relocating B-61 bombs to CONUS would go a long way to easing European domestic tensions.

## **Security Improvements**

Nonetheless, the practice of storing impractical US bombs in European bunkers continues. The incoherent justifications for maintaining this nuclear posture is lost on many Europeans and presents a constant source of internal friction and political discord leading to acts of protest, intrusion and vandalism at deployment bases. While maybe not intentional, these probing acts may publicly uncover vulnerabilities for exploitation by other more capable actors seeking to gain access to the weapon storage facilities.

Naturally, relocating B-61 gravity bombs from Europe to the US would enhance the nuclear security posture in support of non-proliferation objectives. There was an implicit danger posed by the forward nuclear storage sites during the Cold War which is amplified today given a more determined and perhaps more technically capable terrorist threat. Some analysts suppose one of the Soviet’s top priorities was to destroy munitions sites, steal warheads or perhaps detonate a weapon in place. Feaver postulates “if the Spetznaz forces were able to detonate a NATO warhead behind NATO lines the effect on the cohesion of the allies (NATO countries) would be devastating.”<sup>31</sup> His argument furthermore suggests this scenario is no less likely today even though the Soviet-Russian threat has waned. He contends “a terrorist group could behave much like Soviet Spetznaz forces in gaining access to storage depots and attempting to detonate a stolen nuclear weapon. In fact, terrorist groups might be more likely to pursue such an objective, since it is characteristic of their own modus operandi and they would have a more difficult time gaining access to nuclear weapons any other way.”<sup>32</sup> In his article, *The Security of*

*NATO Nuclear Weapons*, Major General Remkes (USAF, Retired) is more explicit in his assessment of the reported vulnerabilities and postulated threat and urges, “if security at NATO nuclear storage sites has not been or cannot be corrected quickly and completely, consideration should be given to pulling all remaining B-61s from Europe as an urgent measure to improve NATO security.”<sup>33</sup>

Consolidating the remaining nuclear warheads to CONUS would greatly simplify the US and host countries’ security requirements and procedures for recapture and recovery of a stolen weapon. Currently, the European planning, negotiations, exercises and operations for these events are more complex than CONUS-based plans due to geography, international relationships, rules of engagement, and differing US department roles and responsibilities. A deployment concept relying on day-to-day CONUS storage and maintenance would create a less dynamic security threat environment. By limiting the delivery and presence of the nuclear weapons to a small window of time just before execution, the risk of capture or theft is dramatically reduced, so planning and resourcing for US and host-country security forces and infrastructure can be reduced proportionally.

### **Defense budget savings**

Relocation of the US B-61 bombs to a CONUS storage facility represents some low-hanging fruit for defense spending cuts. Foremost, over time there would be a significant savings in manpower, equipment, and maintenance of both the weapons and storage systems. A program expert suggests 800 personnel could be removed from European bases.”<sup>34</sup> This USAF reduction does not include the other proportional cuts to host-nation security forces representing substantial savings for NATO partners whose defense budgets are also challenged to meet

growing conventional commitments. Secondly, this modified deployment scheme offers definitive savings in warhead maintenance programs. A CONUS-based storage system eliminates the need for expensive recurring PNAF overseas missions for B-61 limited-life component and life-extension program maintenance activities. These critical procedures would be performed entirely within CONUS secure storage vice conducting airlift movements to swap out individual components. Additionally, there may be B-61 life extension programs intended to enhance system safety features which could possibly be deferred based on decreased risk assessments since the weapons would be inherently safer, more secure and handled less in CONUS storage bunkers.

## **Recommendations**

### **Engage NATO for an Alliance TNW Withdrawal Decision**

The 2010 Nuclear Posture Review report indicates, “Any changes in NATO’s nuclear posture should only be taken after a thorough review within – and decision by – the Alliance.”<sup>35</sup> However, NATO’s own 2010 Strategic Concept passed on yet another opportunity to address the challenge of European TNW despite support within the alliance for some nuclear posture reform. Therefore, as the sole provider of NATO’s TNW, America must take the leadership reigns and press NATO to consider changing the B-61 basing construct. Over the past two decades NATO has accomplished dramatic reductions and consolidation without strategic or regional consequence to the overall extended deterrent. Hence it is time to take the next step by relocating the few remaining nuclear weapons to US soil while maintaining the capability to generate NATO nuclear strike aircraft with just-in-time bomb delivery.

### **Relocate B-61s from European Bases for Storage at Existing CONUS Facilities**

Consolidate US TNW in a central storage facility where periodic and life-extension maintenance activity can commence free from the vulnerabilities and risks associated with exposing weapons and rotating components. Ideally, these bombs would be stored a location with other non-deployed weapons, thus offering the best security available in the nuclear community.

### **Maintain and Continue to Exercise Dual-Capable Aircraft Capability**

Dual-capable aircraft represent an important scalable nuclear strike option in the greater context of deterrence. Preserving strike aircraft forces in Europe serves the same visible assurance function as continuous conventional bomber presence in the Pacific. The inherent visible escalatory signaling provided by generation of NATO DCA is unmatched by strategic ICBM, SLBM and bomber platforms. Until there is a comprehensive treaty to eliminate sub-strategic weapon systems, NATO should continue to maintain, upgrade and exercise its DCA capability as a component of extended deterrence.

### **Add Just-in-Time Delivery to Operational Procedures and Exercise the Tactics**

Any deterrence strategy requires a credible and resilient capability to respond to aggression. To this end, NATO through the US Air Force, must develop and exercise new tactics, techniques and procedures to transfer weapons on-demand via PNAF. These transcontinental flights should simulate as realistically as possible the capability to safely and

securely deliver B-61 bombs to forward operating bases. The receiving units must also demonstrate the ability to protect simulated resources in a generation scenario.

### **Seek Russian Reciprocal Non-Strategic Nuclear Weapon Consolidation**

Withdrawal of US TNW may encourage Russia to act in kind and might open discussion of more bilateral reductions. Thousands of sub-strategic weapons have already been withdrawn in previous unilateral actions since near the end of the Cold War. Taken in whole, these reductions have encouraged stability, not provocation with Russia. As evidence, during the last two decades US and Russia have successfully reduced their strategic systems by thousands more through negotiated treaties. However, as long as NATO maintains TNW in Europe, the Russians will resist any discussion of non-strategic nuclear weapon withdrawal, consolidation or elimination. NATO should take the lead, demonstrate good faith and take this modest step to encourage the Russians to consolidate and reduce their non-strategic weapons. This recommendation leverages the Obama administration's NPR report which proclaimed:

The United States will pursue high-level, bilateral dialogues on strategic stability with both Russia and China which are aimed at fostering more stable, resilient, and transparent strategic relationships ... For its part, Russia could explain its modernization programs, clarify its current military doctrine (especially the extent to which it places importance on nuclear weapons), and discuss steps it could take to allay concerns in the West about its non-strategic nuclear arsenal, such as further consolidating its non-strategic systems in a small number of secure facilities deep within Russia.<sup>36</sup>

## **Conclusion**

Road to zero creates an ideal opportunity to reshape European extended deterrence posture. The international community has the chance to advance down the road by recasting the extended deterrence model with CONUS-based TNW storage. As displayed in the Pacific,

extended deterrence protection and alliance assurances are still credible without forward-deployed weapons. Additionally, this modest step of consolidating B-61 bombs in the US could encourage Russian non-strategic weapon consolidation away from its border with Europe without jeopardizing any tangible NATO capability. Finally, bringing weapons to CONUS control reduces the financial costs of nuclear burden sharing, bolsters safety and security and further reduces proliferation risks.



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